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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,498

10/30/2003

Renzo Colle

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EXAMINER

KARDOS, NEIL R

ART UNIT

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3623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/696,498	Applicant(s) COLLE ET AL.	
	Examiner Neil R. Kardos	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/30/2003, 8/23/2004, 8/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a non-final first Office action on the merits. Currently, claims 1-28 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-20 and 25-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 recites a “system” comprising the following components: (1) an engine for associating resource information with task items, and (2) a database.

These components do not necessarily make up a physical structure. Rather, they merely constitute procedures that do not require an accompanying structure. Such procedures, in a reasonably broad sense, are merely a collection of steps to be followed in order to achieve a desired outcome (i.e. a collection of computer instructions). In a reasonably broad sense, claim 1 is directed to computer instructions that lack any tangible structure. Applicant's specification is directed to software that performs these procedures (see paragraph 29: lines 7-10). However, claim 1 does not tangibly embody this software on a computer-readable medium. This claim does not recite any physical structure that would serve to constitute a “system.”

The dependent claims 2-17 are also rejected because they fail to add substantial limitations to remedy the deficiencies of the claims that they depend from.

Claim 18 recites a “data repository” that stores information. By itself, a database is not a machine, manufacture, process, or composition of matter as required per 35 U.S.C. § 101.

Art Unit: 3623

Furthermore, a database per se does not produce a useful result because it is simply a collection of information that is not being manipulated in any way. A database also fails to produce a tangible result because it is merely a disembodied data structure.

The dependent claims 19-20 are also rejected because they fail to add substantial limitations to remedy the deficiencies of the claims that they depend from.

Claim 25 recites a “propagated signal” that embodies a computer program. A propagated signal is not a machine, manufacture, process, or composition of matter as required per 35 U.S.C. § 101. Furthermore, a computer program embodied on a propagated signal fails to produce a tangible result because it is merely a disembodied data structure.

The dependent claims 26-28 are also rejected because they fail to add substantial limitations to remedy the deficiencies of the claims that they depend from.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 5-19, 21, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. pre-grant publication number 2003/0061087 to Srimuang (“Srimuang”).

As per claim 1, 18-19, 21, and 25 Srimuang discloses a computer system (see figure 1; paragraph 68), computer-readable medium (see figure 1; paragraph 68), and computer-implemented method for scheduling resources needed to perform service actions, comprising:

- an engine that associates, based on user input, resource information with task items that need to be completed as part of performing a service action (see paragraphs 10, 13, and 110, disclosing scheduling an appointment based on availability of required personnel, consumable resources, and non-consumable resources; paragraph 98-99, disclosing allowing users to schedule appointments based on available resources; figure 1, depicting schedule databases and availability checking; paragraphs 72, 79-81); and
- a repository of resource information associable with the task items, the repository including human resource information, reusable resource information, and non-reusable resource information (see id.), wherein:
 - the human resource information includes availability information for human resources (see id.),
 - the reusable resource information includes availability information for reusable resources (see id.), and
 - the non-reusable resource information includes availability information for non-reusable resources (see id.).

As per claims 5 and 6, Srimuang discloses wherein the availability information for human resources comprises availability information for individuals and for groups of individuals (see paragraph 56).

As per claim 7, Srimuang discloses wherein the availability information for reusable resources comprises availability information for tools (see paragraph 56, disclosing wherein the reusable resource is an object, such as a dentist's chair; paragraph 92, disclosing wherein the reusable resource is a card deck, which is a tool for playing a card game).

As per claim 8, Srimuang discloses wherein the availability information for reusable resources comprises availability information for work areas (see paragraph 56, disclosing wherein the reusable resource is a location, such as a conference room; paragraph 110, disclosing wherein the reusable resource is an examination room).

As per claim 9, Srimuang discloses wherein the availability information for non-reusable resources comprises availability information for spare parts (see paragraph 10, disclosing wherein the non-reusable resource is shampoo, motor oil, or tongue depressors; paragraph 56).

As per claim 10, Srimuang discloses wherein:

- the task items include a human resource skill requirement (see paragraph 13, disclosing scheduling nurses and doctors),
- the human resource information includes a indication of a skill possessed by particular human resources that are represented in the human resource information (see *id.*), and
- the engine associates a particular human resource with a particular task item only when the indication of the skill possessed by the particular human resource matches the human resource skill requirement of the task item (see *id.*; paragraphs 10 and 110, disclosing scheduling an appointment based on availability of different personnel, consumable resources, and non-consumable resources).

As per claim 11, Srimuang discloses wherein:

- the task items include a tool characteristic (see paragraph 13, disclosing scheduling examination rooms and x-ray rooms),
- the reusable resource information includes an indication of a tool characteristic for particular tools that are represented in the reusable resource information (see id.), and
- the engine associates a particular tool with a particular task item only when the indication of the tool characteristic for a particular tool matches the tool characteristic of the task item (see id.; paragraphs 10 and 110, disclosing scheduling an appointment based on availability of different personnel, consumable resources, and non-consumable resources).

As per claims 12-14, Srimuang discloses wherein the availability information for human resources, reusable resources, and non-reusable resources is provided to the repository of resource information from a computer system other than the computer system for scheduling resources (see figure 1, depicting vendors and customers that provide availability information over a network to scheduling server 104; paragraphs 68-69, disclosing scheduling software divided among a plurality of servers; paragraphs 81-83).

As per claim 15, Srimuang discloses wherein the engine and the repository of resource information are capable of communicating using a network with mobile clients (see figure 1, depicting engine and repository in scheduling server 104 communicating via the internet 102 with mobile clients 106-114).

As per claim 16, Srimuang discloses wherein the engine is configured to send, to each mobile client, resource information associated with task items that need to be completed as part of performing a particular service action (see paragraph 95, disclosing wherein a customer can view an employee's availability).

As per claim 17, Srimuang discloses wherein the engine is configured to receive, from each mobile client, user input for the purpose of associating resource information with a particular task item (see paragraphs 98, 104-106, and 110, disclosing wherein a customer can make an appointment that affects the availability of a resource).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3, 20, 22-23, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srimuang in view of U.S. patent number 6,571,215 to Mahapatro ("Mahapatro").

As per claims 2, 20, 22, and 26, Srimuang discloses the storage repository and the engine that associates resource information with task items (see claim 1 rejection).

Srimuang does not explicitly disclose wherein the repository includes non-resource constraint information, and the engine makes associations based on user input and non-resource constraint information.

Mahapatro teaches including non-resource constraint data, such as deadlines, in task scheduling (see column 12: lines 13-27; column 12: table 1, disclosing including a "must-finish-by" constraint).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the non-resource constraint data taught by Mahapatro in the scheduling device and method disclosed by Srimuang. One of ordinary skill in the art would have been motivated to do so for the benefit of increased efficiency and accuracy in meeting customer demands on time (see column 5: lines 5-24).

As per claims 3, 23, and 27, Srimuang discloses wherein the information is provided to the repository of resource information from a computer system other than the computer system for scheduling resources.

Srimuang does not explicitly disclose wherein the information is non-resource constraint information. However, Mahapatro discloses this as per the rejection above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the non-resource constraint information taught by Mahapatro sent to the repository as described in the disclosure of Srimuang. As in Srimuang, it is within the capabilities of one of ordinary skill in the art to provide information to one computer system from a separate computer system with the predicted result of a successful transmittal.

8. Claims 4, 24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srimuang in view of U.S. patent number 6,571,215 to Mahapatro ("Mahapatro"), and further in view of Official Notice.

As per claims 4, 24, and 28, Srimuang and Mahapatro do not explicitly disclose wherein the non-resource constraint information comprises information about contractual requirements.

Mahapatro, however, teaches including non-resource constraints in task scheduling. Furthermore, Mahapatro teaches constraints that are commonly associated with contractual requirements, such as start dates, end dates, priorities, and specific resource assignments (see column 12: table 1).

Examiner takes Official Notice that it would have been obvious to one in the scheduling arts to retrieve the constraints taught by Mahapatro from a contract and incorporate them into the invention disclosed by Srimuang. One of ordinary skill in the art would have been motivated to do so for the benefit of increased efficiency and accuracy in meeting customer demands (see Mahapatro column 5: lines 5-24).

Additional Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. pre-grant publication number 2003/0126141 to Hassman et al, directed to managing and resourcing persons, skill sets, and project requirements.

U.S. pre-grant publication number 2005/0015504 to Dorne et al, directed to resource management.

U.S. pre-grant publication number 2004/0138939 to Theiler, directed to managing workflow.

U.S. pre-grant publication number 2004/0162811 to Wetzer et al, directed to planning, scheduling, and allocating MRO resources.

U.S. patent number 7,035,808 to Ford, directed to arranging and selecting resources for work items.

U.S. patent number 5,630,070 to Dietrich et al, directed to optimizing manufacturing resource planning.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

NRK
2/6/08

/Beth Van Doren/
Primary Examiner, Art Unit 3623